

L Number	Hits	Search Text	DB	Time stamp
6	0	(phase with change) same (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	USPAT; US-PGPUB	2004/09/22 09:29
7	21	(phase with change) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	USPAT; US-PGPUB	2004/09/22 09:58
8	0	(phase near3 changeable) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	USPAT; US-PGPUB	2004/09/22 09:57
9	14	(programmable near3 material) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	USPAT; US-PGPUB	2004/09/22 09:57
10	0	(recordable near3 material) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	USPAT; US-PGPUB	2004/09/22 09:57
11	35	(memory near3 material) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	USPAT; US-PGPUB	2004/09/22 09:57
12	0	(recording near3 material) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	USPAT; US-PGPUB	2004/09/22 09:56
13	0	(recording near3 material) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	EPO; JPO; DERWENT; IBM_TDB	2004/09/22 09:56
14	0	(memory near3 material) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	EPO; JPO; DERWENT; IBM_TDB	2004/09/22 10:00
15	0	(recordable near3 material) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	EPO; JPO; DERWENT; IBM_TDB	2004/09/22 09:57
16	0	(programmable near3 material) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	EPO; JPO; DERWENT; IBM_TDB	2004/09/22 09:57
17	0	(phase near3 changeable) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	EPO; JPO; DERWENT; IBM_TDB	2004/09/22 09:58
18	0	(phase with change) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	EPO; JPO; DERWENT; IBM_TDB	2004/09/22 09:58
19	1334	438/93-95,398,602.ccls. and @ad<20011231	USPAT; US-PGPUB	2004/09/22 10:02
21	382	(438/93-95,398,602.ccls. and @ad<20011231) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	USPAT; US-PGPUB	2004/09/22 10:02
22	667	257/3,4,200,246.ccls. and @ad<20011231	USPAT; US-PGPUB	2004/09/22 10:02
24	0	(257/3,4,200,246.ccls. and @ad<20011231) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained))	USPAT; US-PGPUB	2004/09/22 10:03
25	667	(257/3,4,200,246.ccls. and @ad<20011231) not ((438/93-95,398,602.ccls. and @ad<20011231) and (HSG or (hemispheric adj grain) or (hemispheric adj grained) or (hemispherical adj grained)))	USPAT; US-PGPUB	2004/09/22 10:04

26	2223	(phase adj change) and adhesion	USPAT; US-PGPUB	2004/09/22 10:05
27	398	(phase adj change adj material) and adhesion	USPAT; US-PGPUB	2004/09/22 10:05
28	228	((phase adj change adj material) and adhesion) and @ad<20011231	USPAT; US-PGPUB	2004/09/22 10:05
29	73	(phase adj change adj material) same adhesion	USPAT; US-PGPUB	2004/09/22 10:05
30	52	((phase adj change adj material) same adhesion) and @ad<20011231	USPAT; US-PGPUB	2004/09/22 10:05

DOCUMENT-IDENTIFIER: US 20030001211 A1

TITLE: MODIFIED CONTACT FOR PROGRAMMABLE
DEVICES

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Detail Description Paragraph - DETX (29):

[0056] As further illustrated in FIG. 16, following the introduction of programmable material 404, barrier material 408 is formed on programmable material 404 and conductor 410 is formed on barrier material 408, in accordance with an embodiment. Barrier material 408 serves, in an aspect, to prevent any chemical reaction between programmable material 404 and conductor 410. In an embodiment, programmable material 404, spacer 402, barrier material 408 and conductor 410 are formed using conventional patterning techniques. In an embodiment, barrier material 408 includes at least one of titanium and titanium nitride. Titanium and/or Titanium nitride coatings can be deposited uniformly on a substrate, showing good adhesion in that they resist flaking, blistering, chipping and peeling. In an embodiment, programmable material 404 includes a phase change material of a chalcogenide alloy and contact 170 includes CoSi.sub.2. In an embodiment, chalcogenide alloys suitable as programmable material 404 include at least one element from column VI of the Periodic Table Of The Elements. In an embodiment, Ge.sub.2Sb.sub.2Te.sub.5 is utilized as programmable material 404. Other chalcogenide alloys utilized as programmable material 404 include GaSb, InSb, InSe, Sb.sub.2Te.sub.3, GeTe, Ge.sub.2Sb.sub.2Te.sub.5, InSbTe, GaSeTe, SnSb.sub.2Te.sub.4, InSbGe, AgInSbTe,

(GeSn)SbTe, GeSb(SeTe), and $\text{Te}_{.81}\text{Ge}_{.15}\text{Sb}_{.2}\text{S}_{.2}$.